

STELLA-FRESNEL

~25° beam for warehouse and outdoor lighting. Compatible with up to 30 mm LES size COBs. Variant with black frame.

SPECIFICATION:

Dimensions	Ø 90.0 mm
Height	23 mm
Fastening	screw
Ingress protection classes	IP67
ROHS compliant	yes 🛈



MATERIALS:

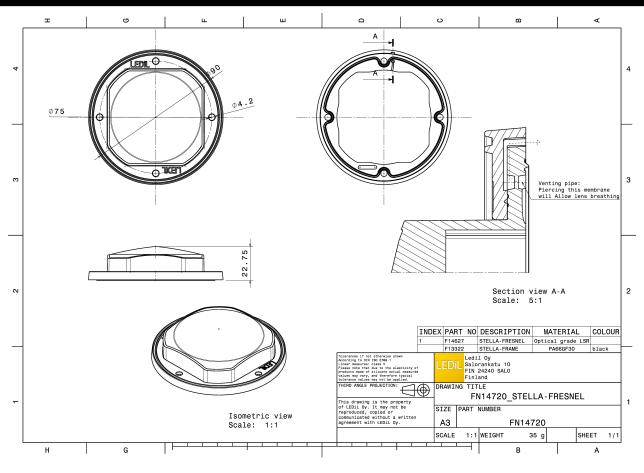
Component	
STELLA-FRESNEL	
STELLA-FRAME	

Туре	Material	Colour	Finish
Single lens	Silicone	clear	
Holder	PA66	black	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FN14720_STELLA-FRESNEL	Single lens	80	80	10	4.0
» Box size: 480 x 280 x 300 mm					





See also our general installation guide: <u>www.ledil.com/installation_guide</u>



bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Bender Wirth: 43		30. 30. 41. 52. 53. 50. 50. 50. 50. 50. 50. 50. 50
bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componel BJB: 47.319.235		
brdgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone TE Connectivity:		500, 600 600 600 600 600 600 600 600 600
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componel Bender Wirth: 43		



bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	Vero SE 13 27.0° / 63.0° 85 % 1.6 cd/lm 1 White hts:	90" 90" 90" 90" 90" 90" 90" 90"
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	Vero SE 18 31.0° / 73.0° 86 % 1.3 cd/lm 1 White hts:	5 ⁴ 5 ⁴ 5 ⁴ 5 ⁴ 5 ⁴ 5 ⁴ 5 ⁴ 5 ⁴
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	Vero SE 29 46.0° / 161.0° 87 % 0.7 cd/m 1 White nts:	
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	VERO13 26.0° / 62.0° 84 % 1.6 cd/lm 1 White hts:	25 ⁻ 25 ⁻ 25 ⁻ 27



bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	VERO18 31.0° / 75.0° 85 % 1.2 cd/lm 1 White mts:	
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	VERO29 48.0° / 165.0° 87 % 0.7 cd/lm 1 White ints:	
CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CLL04x/CLU04x 36.0° / 99.0° 86 % 1.1 cd/lm 1 White	
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CMA2550 30.0° / 67.0° 86 % 1.5 cd/lm 1 White ints:	



CREE Construction of the second secon	CMA3090 35.0° / 79.0° 88 % 1.2 cd/lm 1 White	
CREE ≑		94 ⁶ <u>1255</u> 347 25 ⁷ 0 ⁴ 15 ⁵
LEDS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 47		
		335 ¹ 0 ¹ 135
CREE Construction of the second secon	CXA/B 1816 & CXA/B 1820 & CXA 1850 24.0° / 57.0° 84 % 1.9 cd/lm 1 White	
		30° 200 4° 10° 200
LED FWHM / FWTM Efficiency	CXA/B 1830 26.0° / 64.0° 85 %	95 ⁵ 72 ⁵ 60



		50 ⁴
LED	CXA/B 25xx	
FWHM / FWTM	33.0° / 120.0°	71 71
Efficiency	84 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
LEDS/each optic	ı White	er er
Required componer		
		120
		30° 30° 35° 0° 35°
		set and set an and set
LED	CXA/B 25xx	
FWHM / FWTM	31.0° / 75.0°	
Efficiency	86 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	e
Required componer		
		30°
		155 [°] 0 ⁰ 15 [°]
CREE ÷		
		50 ⁴
LED	CXA/B 25xx	2 ¹
LED FWHM / FWTM	32.0° / 76.0°	94 [*] 97 [*]
LED FWHM / FWTM Efficiency	32.0° / 76.0° 85 %	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LEDs LED FWHM / FWTM Efficiency Peak intensity	32.0° / 76.0° 85 % 1.2 cd/lm	
LEDs EFWHM / FWTM Efficiency Peak intensity LEDs/each optic	32.0° / 76.0° 85 % 1.2 cd/lm 1	
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	32.0° / 76.0° 85 % 1.2 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts:	
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0°	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0° 88 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43 CREE LED FWHM / FWTM Efficiency Peak intensity	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0°	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43 CREE Bender Wirth: 43	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0° 88 % 1 cd/lm 1	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43 CREE LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0° 88 % 1 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43 CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0° 88 % 1 cd/lm 1 White nts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43 CREE LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0° 88 % 1 cd/lm 1 White nts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 43 CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	32.0° / 76.0° 85 % 1.2 cd/lm 1 White nts: 39 Typ L3 CXA/B 30xx 37.0° / 87.0° 88 % 1 cd/lm 1 White nts:	



	EDS	80*	90°
LED	LUXEON CoB 1211	$\frac{1}{2}$	
FWHM / FWTM	33.0° / 79.0°	73	75*
Efficiency	85 %		
Peak intensity	1.1 cd/lm	607 400	60*
LEDs/each optic	1		
Light colour	White		
Required compone			
Bender Wirth: 43	31 Typ L3		
		30° 2200 0° 15° 0° 15°	36*
	EDS	50°	90*
LED	LUXEON CoB 1213/1216/1812	2 ° ~	
FWHM / FWTM	39.0° / 139.0°	75	75*
Efficiency	86 %		
Peak intensity	0.9 cd/lm	60*	60.
LEDs/each optic	1		
	' White		45"
Light colour			
Required compone	ins.		
		30°	30°
		15° 1000 15°	
	EDS	10°	90*
		25 ⁷ 58 ⁹⁰ 15 ⁴	90'
LED	LUXEON CoB 1321	237 - 1399 - 1339 1944	90
LED FWHM / FWTM	LUXEON CoB 1321 50.0° / 165.0°		90
LED FWHM / FWTM Efficiency	LUXEON CoB 1321 50.0° / 165.0° 85 %	94- 125- 125- 126- 129- 129- 129- 129-	90' 75' 60'
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm	23 <u>100</u>	90'
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1		90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White		90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White		90'
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White		90 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White		90 75 60 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White		99 75 76 85
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White ints:		99 77 62 65 85
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White ints:		99 75 60 80 80 80 80
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White Ints:		99 22 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White ints: EDS LUXEON CoB 1825		99 20 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White ints: EDS LUXEON CoB 1825 56.0° / 169.0°		99 20 00 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White ints: EDS LUXEON CoB 1825 56.0° / 169.0° 84 %		99 22 90 65 55 55 55 55 55 55 55 55 55 55 55 55
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Multiple Equired compone Equired compone Equired compone Equired compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White ints: EDS LUXEON CoB 1825 56.0° / 169.0° 84 % 0.5 cd/lm		75 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Component Required component Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White mts: EDS LUXEON CoB 1825 56.0° / 169.0° 84 % 0.5 cd/lm 1 White		75°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Multiple Equired compone Equired compone Equired compone Equired compone	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White mts: EDS LUXEON CoB 1825 56.0° / 169.0° 84 % 0.5 cd/lm 1 White		75°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Component Required component Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White mts: EDS LUXEON CoB 1825 56.0° / 169.0° 84 % 0.5 cd/lm 1 White		99 72 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Component Required component Component Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1321 50.0° / 165.0° 85 % 0.6 cd/lm 1 White mts: EDS LUXEON CoB 1825 56.0° / 169.0° 84 % 0.5 cd/lm 1 White		75°



ELUM		85*	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 43	CxM-22 (28x28) 38.0° / 136.0° 86 % 0.9 cd/lm 1 White ents:		200
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	COB H-Type 38.0° / 120.0° 85 % 0.9 cd/lm 1 White		200 - 52* 400 - 64* 800 - 65* 800 - 65*
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	COB J-Type 26.0° / 65.0° 85 % 1.6 cd/lm 1 White		400
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Soleriq S19 32.1° / 72.5° 84 % 1.2 cd/lm 1 White ents:		



PHILIF	S	90 ⁴ 70 90 ⁴
LED	Fortimo SLM L06 CoB	
FWHM / FWTM	18.0° / 44.0°	
Efficiency	86 %	
Peak intensity	2.9 cd/lm	
LEDs/each optic	1	
Light colour	White	e ^r
Required compone	nts:	200
		3 ⁶⁴ 15 ⁷ 3 ⁸
PHILIF	PS	50° 500 30
LED	Fortimo SLM L19 + SLM holder (PI)	
FWHM / FWTM	33.0° / 78.0°	
Efficiency	87 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	a a
Required compone	nts:	
		30-
PHILIF	20	127 of 128"
		^{50*} 7
LED	Fortimo SLM L23 CoB	72
FWHM / FWTM	38.0° / 87.0°	
Efficiency	87 %	60 × / * 6
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	
		30 ⁵ 2009 20 207 of 12 ⁶
SVWSI	ING	*et \$9 \vert et
SVWSI		*22 *9 /241
LED	LC016D / LC019D / LC026D / LC033D	50° (° 33
LED FWHM / FWTM	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0°	50° (° 33
LED FWHM / FWTM Efficiency	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 %	200 40 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 % 1.5 cd/lm	200 - 200 -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 % 1.5 cd/lm 1	200 40 120 100 100 100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 % 1.5 cd/lm 1 White	200 40 120 100 100 100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 % 1.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 % 1.5 cd/lm 1 White	200 40 120 100 100 100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC016D / LC019D / LC026D / LC033D 27.0° / 65.0° 83 % 1.5 cd/lm 1 White	



SAMS	JNG	80°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC040D / LC060D / LC080D 37.0° / 119.0° 84 % 0.9 cd/lm 1 White	
SEOUL		25 ⁴ 1000 15 ⁴
stoul steniconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone IDEAL: 50-2103		
SEOUL		107 167 15*
scour semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone IDEAL: 50-2204		
seour semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone IDEAL: 50-2204		

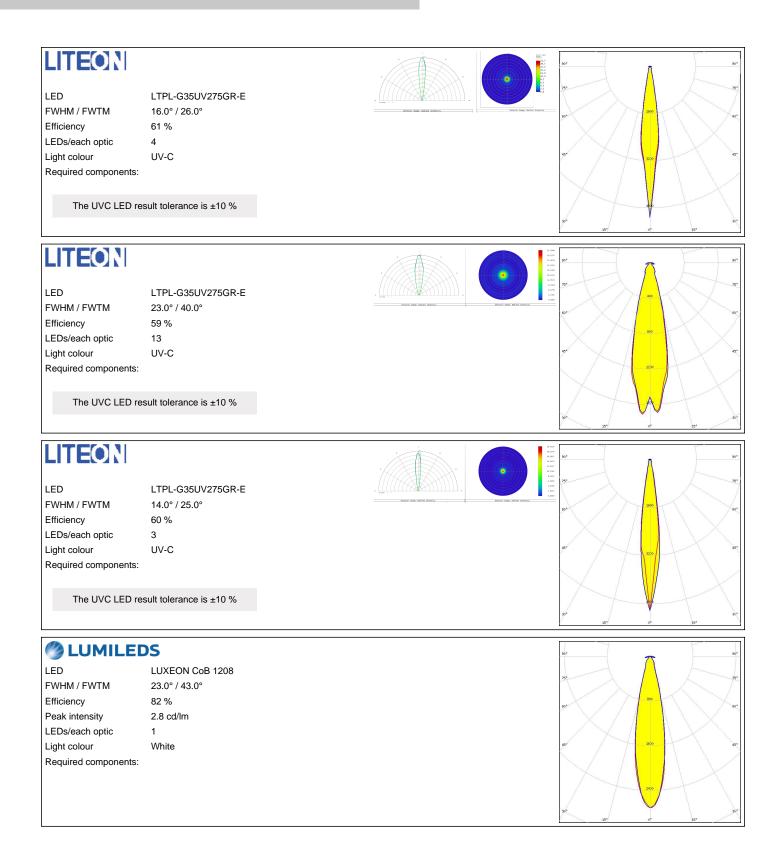


bridgelux.		50* 50*
LED	V10 Gen7	73*
FWHM / FWTM	18.0° / 35.0°	
Efficiency	85 %	60° 60°
Peak intensity	4 cd/lm	
LEDs/each optic	1	
Light colour	White	e, e,
Required components:		200
Bender Wirth: 486 Ty	p L1	
		34°
bridgelux.		90*
LED	V13 Gen7	
FWHM / FWTM	20.0° / 90.0°	
Efficiency	86 %	60°
Peak intensity	0.4 cd/lm	1600
LEDs/each optic	1	
Light colour	White	95× 45×
Required components:		
		3200
		34°
		15° 0° 15°
\frown		
bridgelux.		90° 99°
bridgelux. LED	V22 Gen7	
	V22 Gen7 30.0° / 70.0°	37 37 39 97
LED		
LED FWHM / FWTM Efficiency Peak intensity	30.0° / 70.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 70.0° 84 % 0.5 cd/lm 1	25 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 70.0° 84 % 0.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	30.0° / 70.0° 84 % 0.5 cd/lm 1	25 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 70.0° 84 % 0.5 cd/lm 1	gr 00 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	30.0° / 70.0° 84 % 0.5 cd/lm 1	gr 00 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	30.0° / 70.0° 84 % 0.5 cd/lm 1	gr 00 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT	30.0° / 70.0° 84 % 0.5 cd/lm 1	yu - 200 - 27 57 - 00 57 - 00 72 - 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT	30.0° / 70.0° 84 % 0.5 cd/lm 1 White	yu - 200 - 27 57 - 00 57 - 00 72 - 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10)	yu - 200 - 27 57 - 00 57 - 00 72 - 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT CITTIZEN LED FWHM / FWTM	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0°	30. 30. 30. 30. 30. 40. 40. 40. 40. 30. 40. 40. 30. 40. 40.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT CITTIZEN LED FWHM / FWTM Efficiency	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0° 86 %	30. 30. 30. 60. 60. 60. 60. 60. 60. 60. 60. 60. 60. 60. 60.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT DEAL: 50-2204CT	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT DEAL: 50-2204CT	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0° 86 % 4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0° 86 % 4 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT DEAL: 50-2204CT	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0° 86 % 4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0° 86 % 4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: IDEAL: 50-2204CT CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 70.0° 84 % 0.5 cd/lm 1 White CLL02x/CLU02x (LES10) 17.0° / 35.0° 86 % 4 cd/lm 1	

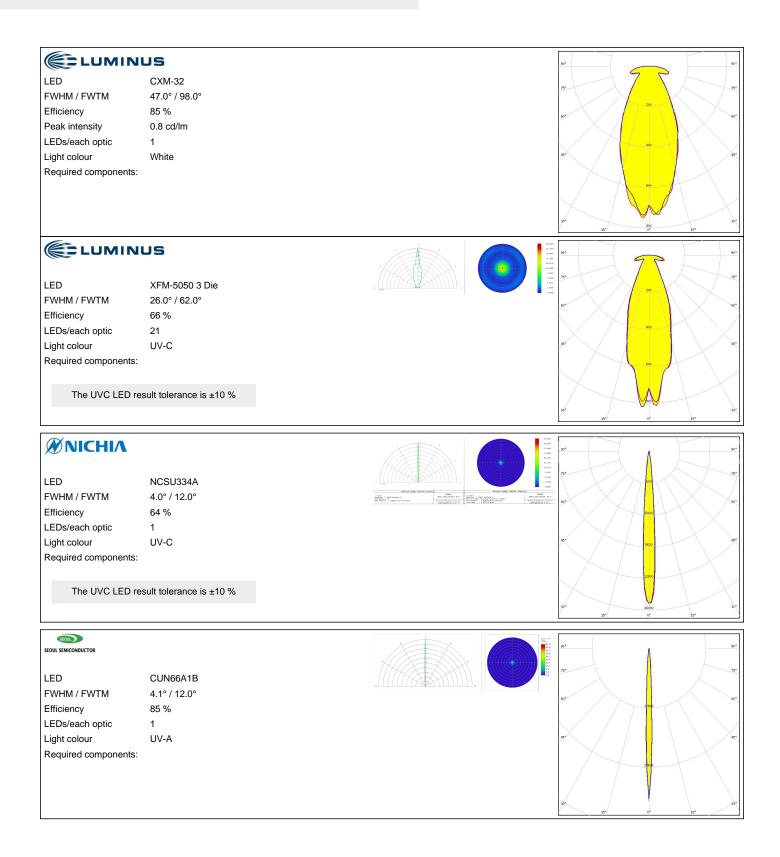


CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	CLL05x/CLU05x 46.0° / 144.0° 91 % 0.8 cd/lm 1 White	99 ⁵ 99 ⁵ 99 ⁵ 99 ⁵ 99 ⁵ 99 ⁶ 99 ⁶ 9
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	CMB3090 34.0° / 74.0° 85 % 1.3 cd/lm 1 White	
CREE ≑		
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	CXA/B 3590 37.0° / 80.0° 83 % 1.1 cd/lm 1 White	27 27 27 27 27 27 27 27 27 27
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	CXA/B 3590 42.0° / 153.0° 85 % 0.9 cd/lm 1 White	50° 50° 60° 60° 60° 60° 60° 60° 60° 60° 60° 6











SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components	CUN66B1B 4.3° / 13.0° 83 % 1 UV-A :	
SEOUL SEMICONDUCTOR		
LED	WICOP DY9560-27	
FWHM / FWTM	15.0° / 26.0°	Later spectra states and the manual states a
Efficiency	63 %	
LEDs/each optic	24	
Light colour	UV-C	9 ⁴
Required components The UVC LED r	: result tolerance is ±10 %	27 27 27 27